



# Staying Connected: Linking Habitats Across Boundaries to Sustain Wildlife and People

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## **TOPICS**

Advancing Conservation and Restoration of Ecological Connectivity in the Transborder Landscape of Northeastern North America/Turtle Island

## **SUBTOPICS**

Ecological Connectivity; Biodiversity Conservation; Landscape-Scale Conservation; Transboundary Partnership and Collaboration; Multiscale and Multistrategy Conservation; Conservation Science and Planning; Land Protection and Stewardship; Land Use Planning, Community Engagement; Road Ecology; Conservation Policy and Funding; Partnership Coordination; Collective Impact; Cobenefits of Conservation; Innovation; Staying Connected Initiative; New England Governors and Eastern Canadian Premiers

## **TIMEFRAME**

2000–2025

## **LEARNING GOALS**

- Gain an appreciation of the importance of ecological connectivity for sustaining wildlife populations, functioning ecosystems, and human communities, and for bolstering climate resilience.
- Build an understanding of the need for well-coordinated multiscale, multistrategy, and cross-sector efforts to sustain and restore connectivity in large landscapes.
- Gain familiarity with the evolution, accomplishments, strengths, and challenges of the Staying Connected Initiative partnership as a model for transboundary connectivity conservation and restoration.
- Acquire insights into the necessity, challenges, and power of collaboration to tackle complex conservation issues.

## **PRIMARY AUDIENCE**

- Professors, researchers, and students (undergraduate and graduate) interested in land, water, and biodiversity conservation
- Conservation practitioners/frontline staff with governmental agencies, nongovernmental organizations, Indigenous-led entities, and others
- Senior leaders and decision-makers in governmental, nongovernmental, Indigenous, and other conservation-related entities
- Philanthropic foundations and other private sector conservation donors
- Interested members of the general public

## **PREREQUISITE KNOWLEDGE**

General knowledge of land and water conservation approaches.

## **SUMMARY**

The Staying Connected Initiative (SCI) is an innovative partnership focused on sustaining and enhancing ecological connectivity in the northeastern part of North America/Turtle Island. (Turtle Island is the name used by many Indigenous peoples of this region for what is commonly known as North America.) This case study examines SCI's approach to maintaining a well-connected landscape that supports both biodiversity and human communities in the face of increasing development and the pressures of climate change. The initiative focuses on the Northern Appalachian–Acadian ecoregion, a globally significant, yet at risk, temperate forest spanning from New York to Nova Scotia and encompassing the traditional territories of many Indigenous peoples. SCI's central mission is to address the fragmentation of this landscape, which isolates wildlife populations, limiting their ability to adapt to environmental changes, and reduces benefits such as clean air and water, carbon uptake and storage, climate resilience, and outdoor recreation that a well-connected landscape provides for people.

To tackle this problem, SCI employs a collaborative, multifaceted, and integrated approach, engaging more than 80 officially recognized partners from governmental agencies, conservation NGOs, academic institutions, community organizations, and others. Key strategies include conservation science and planning; land protection (securement), land stewardship and restoration; land use planning; outreach and capacity building; road barrier mitigation; and policy development.

To date, the partnership's efforts have resulted in or facilitated the permanent protection of over a million acres (405,000 hectares) of private land; assessment and mitigation of hundreds of road barriers; engagement of dozens of municipalities and regional entities in connectivity-friendly land use planning; and the adoption of three significant resolutions on connectivity by the New England Governors and Eastern Canadian Premiers (NEG-ECP).

While it has achieved significant measurable as well as intangible results, the SCI partnership needs to ensure sufficient, sustained funding and capacity for effective coordination and strategy implementation at multiple scales to optimize its future impact and durability.

## **EXECUTIVE SUMMARY**

This is the story of the Staying Connected Initiative (SCI), an innovative partnership designed to foster ecological connectivity across sociopolitical, cultural, institutional, and sectoral boundaries in the northeastern part of North America/Turtle Island. (Turtle Island is the name used by many Indigenous peoples of this region for what is commonly known as North America.) The initiative aims to sustain a well-connected landscape that supports biodiversity and human communities, addressing a critical need in the face of increasing development and climate change.

Ecological connectivity is essential to the movement of wildlife and plant species, enabling them to meet their life needs and respond to climate change. Well-connected landscapes also provide a host of important benefits for people, including clean air and water, climate change mitigation, natural resource-based livelihoods and products, recreational opportunities, economic vitality, and a strong sense of place.

SCI's core geographic focus is on the Northern Appalachian–Acadian ecoregion, which stretches from northern New York to Nova Scotia and encompasses the traditional territories of the Wabanaki, Haudenosaunee, and other Indigenous peoples. This region is globally significant as the most intact, contiguous area of temperate mixed broadleaf forest remaining in the world. However, the region is threatened by increasing fragmentation from development and infrastructure, which isolates populations of native animals and plants and hampers their ability to adapt to climate change.

SCI employs an innovative multipronged approach, engaging diverse partners at various scales who deliver an integrated set of strategies to conserve and restore ecological connectivity across this large transnational region. Key strategies include conservation science and planning; land protection (securement); land management, stewardship, and restoration; land use planning; outreach and capacity building; road barrier mitigation; and policy development.

Since its founding in 2009, SCI has grown to include more than 80 officially recognized partners, including governmental agencies, conservation NGOs, academic institutions, and community organizations. To date, the partnership's efforts have helped permanently protect over a million acres (405,000 hectares) of important private lands for connectivity; to assess and mitigate hundreds of road barriers; to encourage scores of municipalities and regional commissions to integrate connectivity into land use plans and policies; to engage thousands of individual landowners and community members through local outreach; and to secure the adoption of three resolutions on connectivity by the New England Governors and Eastern Canadian Premiers (NEG-ECP).

The Staying Connected Initiative offers a compelling vision and a successful model of collaborative, landscape-scale connectivity conservation. SCI's approach has been effective and durable in rallying diverse partners and enhancing connectivity across Northeastern North America/Turtle Island. The partnership is positioned to sustain this momentum, but needs sufficient ongoing funding and capacity to provide effective coordination and strategy implementation at multiple scales in order to optimize its future impact.



The Staying Connected Initiative partnership works to secure an ecologically connected network of lands and waters that are essential to sustain wildlife and people in the transboundary landscape of northeastern North America/Turtle Island. Source: Vermont Fish and Wildlife Department.

## INTRODUCTION AND CONTEXT

The Staying Connected Initiative is an innovative partnership involving a wide array of people and organizations tackling a big conservation challenge: the need to work across sociopolitical, cultural, institutional, and sectoral borders to sustain an ecologically well-connected landscape that supports biodiversity and people in the northeastern region of North America/Turtle Island. This story highlights the power of using a multipronged approach involving many partners working at various scales to conserve and restore ecological connectivity in large transborder landscapes. It also illustrates the challenges and opportunities of collaborative conservation initiatives, and the critical need for sustained partnership coordination to optimize collective impact.

### **Ecological Connectivity and Freedom to Roam**

Just like people, wildlife and plants need to move to meet their life needs: to find food, water, and shelter; reproduce; disperse from their birthplace; and mature from youth to adulthood. This need for movement is heightened in times of significant climatic changes, when species must find new homes and habitats with conditions they can tolerate and, preferably, in which they can thrive.

The scale, pace, and mechanisms for this movement vary widely. For some salamanders, seasonal migrations involve moving just a few hundred feet from their wetland breeding habitat in the spring to drier uplands where they spend the rest of the year. Meanwhile, wide-ranging mammals such as black bears and lynx may travel hundreds of miles in their lifetimes. Trout and other fish move upstream and downstream seeking cooler water temperatures as summer progresses, and in the

skies many bird species make annual continental-scale migrations between their summer and winter ranges. Plant pollen and seeds move over short and vast distances, assisted by wind, pollinators, birds, and other herbivores.

The key to sustaining this movement is to maintain an ecologically well-connected network of lands and waters that provides both core habitat areas and pathways free of human-created obstructions to enable species to move from place to place. In many cases, this requires thinking and working across sociopolitical borders—whether national, subnational, or local—and across both public and private lands since the ecological systems and the diverse species of animals and plants that need to move within them transcend those boundaries.

### **Benefits for People**

Well-connected landscapes also offer invaluable benefits for people and communities. Healthy and intact forests and stream systems provide clean air and water. Trees in forested areas slow the pace of climate change by absorbing and storing carbon. Forests reduce vulnerability to extreme flood and drought events by acting as sponges for rainfall and snowmelt and helping stabilize water tables. In addition, these landscapes provide economic opportunities through land-based livelihoods such as sustainable forestry, agriculture, recreation, and tourism, and they support a strong sense of place among people and communities, which is tied to quality of life, psychological well-being, and economic vitality.

### **Connectivity Conservation and Restoration**

In recent decades, as scientific understanding of ecological connectivity has grown, conservation interests worldwide have placed increasing emphasis on the imperative of conserving and restoring connectivity at multiple scales. This work spans a broad range of efforts, from maintaining small-scale pathways between wetland and upland habitat for amphibians, to conserving and restoring regional and continental corridors that allow diverse species to adjust their ranges over decades in response to climate change.

The International Union for Conservation of Nature’s (IUCN) World Commission on Protected Areas (WCPA) Connectivity Conservation Specialist Group (CCSG) defines connectivity conservation as “the collective action of individuals, communities, governmental and nongovernmental institutions, and businesses to maintain, enhance, and restore ecological flows, species movement, and dynamic processes across intact and fragmented environments.”<sup>1</sup> It is now well recognized as an essential complement to other conservation approaches and is bringing together a growing global movement to protect the vital interconnections of nature that are key for safeguarding biodiversity, increasing resilience to climate change, and providing other cobenefits. It is also a key part of the global 30x30

<sup>1</sup> IUCN WCPA Connectivity Conservation Specialist Group.

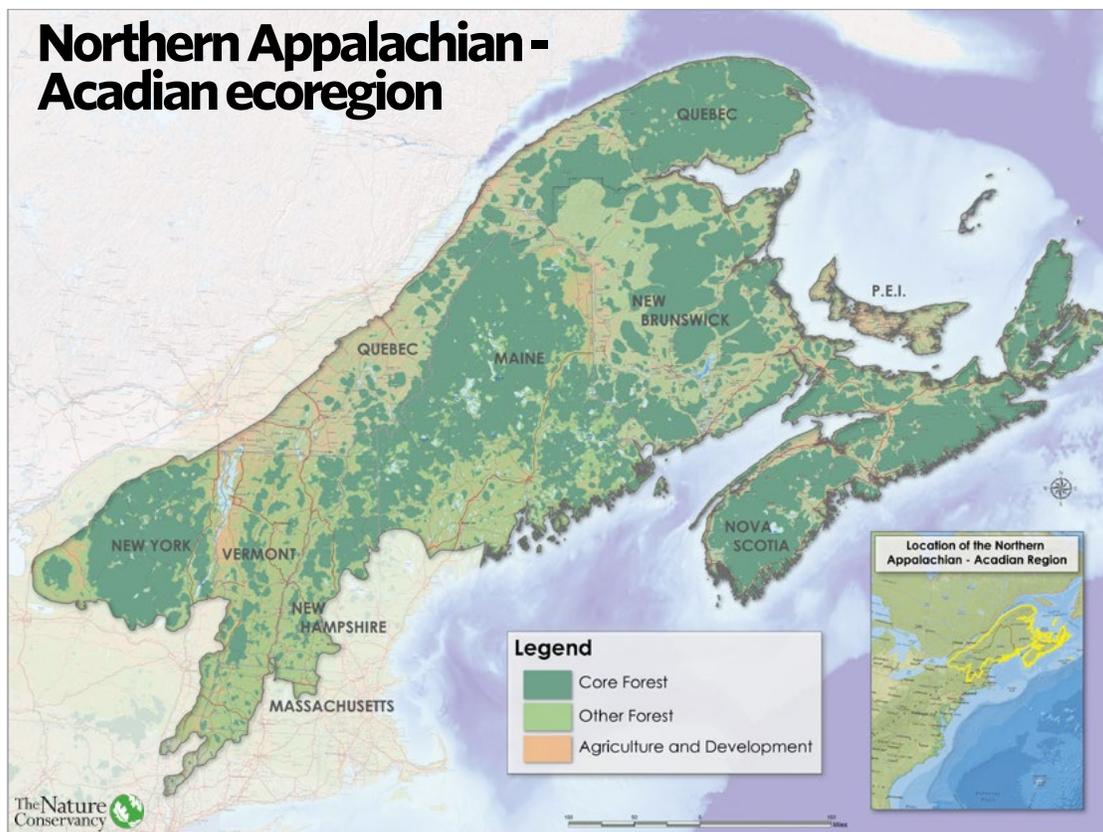


Figure 1. Northern Appalachian–Acadian ecoregion. Source: The Nature Conservancy.

goals as outlined in Target 3 of the 2022 Kunming-Montreal Global Biodiversity Framework, which calls for 30 percent of the planet’s land and water to be conserved and well connected by 2030.<sup>2</sup>

### **The Northern Appalachian–Acadian Ecoregion in Northeastern North America/Turtle Island: Globally and Continentally Significant**

The Northern Appalachian–Acadian ecoregion in the northeastern portion of North America/Turtle Island encompasses nearly 82 million acres (more than 330,000 square kilometers), an area the size of Germany that stretches from north-central New York to Nova Scotia. It includes portions of four eastern Canadian provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Quebec), six northeastern US states (Connecticut, Maine, Massachusetts, New Hampshire, New York, and Vermont), and the traditional territories of the Wabanaki, Haudenosaunee, and other Indigenous peoples (see figure 1).

This vast region is globally significant as the most intact, contiguous area of temperate broadleaf and mixed forest remaining in the world (see figure 2). The region lies between the cold boreal areas of northern Canada and the warmer deciduous forests of the mid-Atlantic and southeastern United States. The result is a “transition forest,” a rich blend of species from north and south. Its rugged topography, complex river systems, and long ocean coastline enhance its ecological diversity.

<sup>2</sup> UN Convention on Biological Diversity Kunming-Montreal Global Biodiversity Framework, 2022.

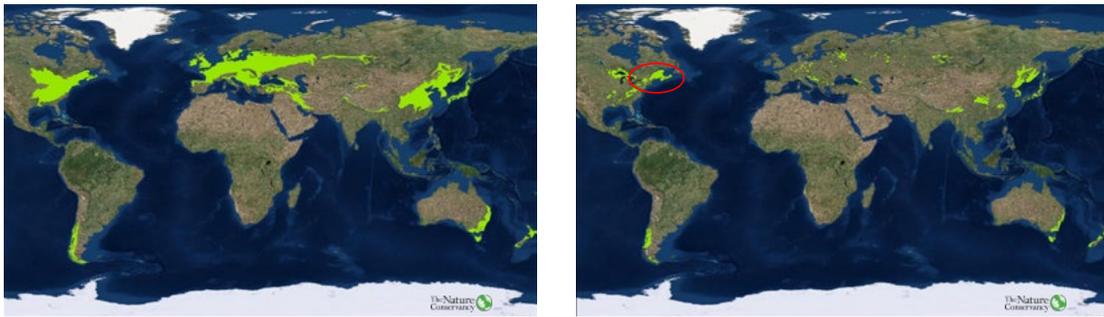


Figure 2. Historical (left) and current (right) distributions of broadleaf and mixed forest. Source: The Nature Conservancy.

While still remarkably intact compared to other forests of its type across the globe, the Northern Appalachian–Acadian ecoregion is at risk of being fragmented by human development into a series of ecological islands, according to studies such as those of Anderson and Sheldon (2011). This places populations of native plants and animals at risk of isolation, as fragmentation would limit their ability to move freely to meet their life needs and adjust their ranges in response to climate change.

In addition to its global significance, the northeastern region of North America/Turtle Island has continentally specific importance. Climate migration has already begun among many species that are now moving up the Appalachian Mountain Range and Eastern Seaboard of North America in search of livable habitats. This northeastern landscape serves both as a destination and as a gateway for them to reach areas farther north.

The Nature Conservancy (TNC) estimates that some species are moving north and south away from the equator at an average of 11 miles per decade.<sup>3</sup> The “Migrations in Motion” schematic developed by TNC based on data from Lawler et al. (2015) shows the likely movement of some 2,300 species of mammals, birds, and amphibians in response to climate change, and identifies the northeastern region of North America/Turtle Island as a major movement zone (see figure 3).

Maintaining terrestrial habitat connectivity at multiple scales—from fine-scale pathways and pinch points to the vastness of the Appalachian Mountains corridor—is essential to support this northward movement and long-term viability of biodiversity in the region.

Protecting and enhancing connectivity of the region’s freshwater, coastal, and marine systems is equally important to enable aquatic species to move freely to meet their life needs and find suitable habitats as waters warm due to climate change. In addition, the interconnections between terrestrial and aquatic systems play ecologically intricate and important roles. For example, intact riparian corridors often function as movement pathways for terrestrial species. Ecologically well-connected aquatic systems in the region support vital benefits for human communities as well, such as clean water, reduced vulnerability to flooding, and resilience to climatic variations.

<sup>3</sup> Anderson, 2023.



Figure 3. Anticipated movement of 2,300 species of mammals, birds, and amphibians in response to climate change. Source: The Nature Conservancy.

### Landownership and Land Use in the Region

The Northern Appalachian–Acadian ecoregion includes everything from sizable human population centers to rural communities interspersed among large swaths of continuous forests like those in the Adirondacks, northern Maine, and New Brunswick. It encompasses undeveloped landscapes through which species can move freely, as well as areas heavily fragmented by development, where short sections of roadways with small forest patches on either side may serve as critically important locations for wildlife passage.

While there is a substantial amount of public land (federal/Crown, provincial, state, and municipal) and permanently conserved private land, most of the landscape on both sides of the Canada–United States border is private land that is not formally conserved or protected (i.e., unconserved). In many areas there are long and closely held traditions of local control, strong private property rights sentiments, and limited appetite for more public land acquisition. In addition, protection–or securement–of private lands through fee title acquisition and conservation easements (also referred to in some areas as conservation restrictions or servitudes) is expensive and funding sources are increasingly limited.

Land management, stewardship, and development of unconserved private lands in the region are in the hands of private landowners in accordance with applicable land use plans and regulations and other relevant laws, regulations, and permitting requirements at the local, provincial or state, and federal levels.

Land use planning and regulation is largely decentralized and administered locally, with decision-making and action in many communities in the hands of appointed or elected volunteers, with frequent turnover. This requires providers of land use planning technical assistance—whether state or provincial agencies, regional planning commissions and similar groups, or NGOs—to engage with a vast array of local entities, individuals, and decision-making processes. Furthermore, land use planning and regulatory decisions are not permanent and require ongoing community engagement to achieve desired outcomes.

### **Conservation Science and Planning in the Region**

In the 1990s, the conservation community recognized that to protect and restore all elements of nature, from big, wide-ranging predators to plants and aquatic organisms, conservation planning and action must occur across geographic and spatial scales. In response, The Nature Conservancy began carrying out conservation planning within entire ecoregions and completed its Ecoregional Assessment of the Northern Appalachian–Acadian Ecoregion in 2006 (Anderson et al.). That same year, the Wildlands Project (now the Wildlands Network) completed a comprehensive conservation strategy, or Wildlands Network Design, for the region that focused on conserving large blocks of core habitat, connecting them in functional ways, and accommodating the needs of a wide range of species, including large predators (Reining et al.).

Building on these efforts, in 2008 a binational scientific team organized under the umbrella of the nongovernmental entity Two Countries, One Forest (2C1Forest) identified priorities for conservation action in an integrated vision to sustain the ecological and human vitality of the Northern Appalachian–Acadian ecoregion (Trombulak et al. 2008). The team included well-respected experts from academic institutions in the region, The Nature Conservancy, Wildlands Project, Nature Conservancy Canada, and other NGOs. A central priority identified by the team was the need to protect several pivotal “landscape linkages”—key areas that connect large forest blocks and are critical for maintaining regional-scale landscape connectivity (see figure 4).

In addition, the State Wildlife Action Plans of Maine, New Hampshire, New York, and Vermont, completed in the mid-2000s, identified conservation and restoration of ecological connectivity and habitat linkages at different scales as a priority for sustaining wide-ranging and forest-dwelling Species of Greatest Conservation Need (SGCN) such as Canada lynx, American marten, black bear, and bobcat. These species need to be able to move across broad areas of the landscape to meet their life needs. The primary threats to the viability of these species, as identified in the states’ action plans, were land use related: habitat loss through fragmentation, degradation, and conversion caused by human-made development, and the impact of transportation networks.



Figure 4. Key “landscape linkages” in the Northern Appalachian-Acadian ecoregion identified by the Two Countries, One Forest science consortium in 2008.

## PROBLEM STATEMENT

The challenge of effectively sustaining and enhancing ecological connectivity in the very large transborder landscape of the Northern Appalachian–Acadian ecoregion is daunting. It requires conservationists to understand and address how terrestrial and aquatic ecosystems function; the movement needs of a wide range of animal and plant species that play out over time at a variety of scales; the associated habitat conditions needed to support that movement; and the ways that human presence can impede or enable connectivity and movement within a landscape.

The challenge is heightened by the multitude of jurisdictions with different responsibilities, authorities, and capacity in this region. These include the Canadian and US federal governments, many Indigenous nations, a number of provincial and state governments, and several thousand municipalities.

Moreover, the predominance of unconserved private lands across the region owned by hundreds of thousands of individual landowners makes it much harder to ensure land management that is compatible with connectivity needs. Similarly, the primarily local responsibility and authority for implementing land use planning and regulation spread across thousands of municipalities creates a difficult context within which to pursue and achieve connectivity-friendly provisions.



The term “wildlife corridor” is often used to capture the concept of ecologically connected lands that enable movement of diverse terrestrial species. The same concept also applies to well-connected waterbodies that allow free passage of fish and other aquatic species. Source: Phil Huffman.

Finally, there is real urgency to sustaining and enhancing an ecologically well-connected landscape in the Northern Appalachian–Acadian ecoregion stemming from several concerning interconnected trends. These include increasing development pressures in many parts of the region and resulting habitat fragmentation, degradation, and conversion; the accelerating pace of climate change and its associated impacts on many plant and animal species, terrestrial and aquatic habitats, and human communities; and the declining abundance of many wildlife species.

## STRATEGY AND IMPLEMENTATION

The complex nature of ecological connectivity, large transborder scale, and societal factors in the Northern Appalachian–Acadian ecoregion create a situation in which no single entity, conservation tool, or strategy can adequately sustain a connected landscape. Instead, a collaborative, well-coordinated, integrated approach with a mix of complementary strategies deployed by a diverse, multiscaled partnership network is needed to address this pressing conservation challenge.

In 2008, a significant new funding opportunity emerged in the United States—the US Fish and Wildlife Service’s (UFWFS) Competitive State Wildlife Grants (CSWG) Program—which was specifically designed to encourage multipartner, large-scale, cross-boundary projects focused on implementing actions contained in State Wildlife Action Plans. In response, an unusual 21-member group of nonprofit conservation organizations, state fish and wildlife agencies, and state transportation agencies from Maine, New Hampshire, New York, and Vermont came together and developed an ambitious proposal to advance the conservation, restoration, and enhancement of

landscape connectivity in the Northern Appalachian–Acadian ecoregion.<sup>4</sup> The group recognized that a collaborative approach involving a diverse mix of partners was necessary for making meaningful headway on this conservation challenge at the landscape scale. No one entity could hope to do this on its own.

The partners also recognized that no single conservation strategy would be sufficient to effectively maintain and restore connectivity in priority locations. As a result, they put forward an innovative, multipronged approach integrating finer-scale conservation science, land protection, land use planning, community engagement, and transportation mitigation work (focused on techniques to make it easier for wildlife to move safely across roadways). These strategies would be applied in each of the top-tier linkage areas in the United States identified by the Two Countries, One Forest consortium in 2008, as well as in a few other regionally important linkages identified by the partners.

This place-based, on-the-ground work in priority locations would be complemented by several cross-cutting strategies that were not tied to a particular place but would help inform and increase the effectiveness of the place-based efforts. These included developing model language for land trusts and government agencies to include in conservation easements to help sustain and enhance connectivity; gathering guidelines and models for connectivity-friendly road mitigation work to inform state transportation agencies; and providing materials and tools to improve connectivity provisions in land use planning efforts by NGOs, municipalities, and regional entities.

The partnership’s proposal, “Staying Connected in the Northern Appalachians: Mitigating Fragmentation and Climate Change Impacts on Wildlife Through Functional Habitat Linkages,” was one of only nine projects nationwide that were awarded funding in the first year of the CSWG Program. USFWS awarded the full grant request of nearly US\$1 million for the project, and the Staying Connected Initiative (SCI) partnership was launched in 2009.

#### **Staying Connected Initiative Core Partners for CSWG**

- |  |   |
|--|---|
| 1. Maine Audubon                                     | 11. The Nature Conservancy (NY, VT, NH, and ME) |
| 2. Maine Department of Inland Fisheries and Wildlife | 12. Trust for Public Land                       |
| 3. Maine Department of Transportation                | 13. Tug Hill Commission                         |
| 4. National Wildlife Federation                      | 14. Tug Hill Tomorrow Land Trust                |
| 5. New Hampshire Audubon                             | 15. Two Countries, One Forest                   |
| 6. New Hampshire Department of Transportation        | 16. Vermont Agency of Transportation            |
| 7. New Hampshire Fish and Game Department            | 17. Vermont Department of Fish and Wildlife     |
| 8. New York Department of Transportation             | 18. Vermont Land Trust                          |
| 9. New York Department of Environmental Conservation | 19. Vermont Natural Resources Council           |
| 10. Northeast Wilderness Trust                       | 20. Wildlands Network                           |
|  | 21. Wildlife Conservation Society (Adirondacks) |

<sup>4</sup> Since the CSWG Program was funded with US federal dollars that could not be spent outside the country, no Canadian partners were part of the initial set of SCI partners that received grant funds. However, several components of the grant involved work in key linkage areas that span the US-Canada border, and staff from a number of Canadian NGOs and agencies were involved with support from other funding sources.

The New Hampshire Fish and Game Department (NHFG) was the lead state entity for the grant, and The Nature Conservancy acted as the lead subgrantee on behalf of the partners. In this role, TNC served as overall project manager, fiscal agent, and administrative lead, and redistributed much of the grant funds to partners.

The federal CSWG funding was matched with more than US\$750,000 in additional funding and in-kind contributions obtained and provided by the partners, and was further leveraged by several million dollars of additional investments secured to help advance the work (e.g., capital grants for land protection projects). Together, these significant resources enabled the partners to accomplish impressive tangible conservation results during the four-year grant period that exceeded the ambitious deliverables included in the original proposal. (See further discussion under Results to Date, page 14.)

While the SCI partnership's early work during the CSWG period focused on maintaining and enhancing terrestrial connectivity for wildlife in regionally significant linkages between large forest blocks, the scope has evolved and become more encompassing as the initiative has matured. The partnership's current vision is to foster "an ecologically interconnected and resilient landscape across the Northern Appalachian–Acadian Forest region of the eastern United States and Canada that sustains healthy lands, waters, wildlife, and vibrant human communities."

The innovative multipronged, integrated approach developed for the original CSWG proposal remains a distinguishing feature of the SCI partnership's efforts to tackle connectivity conservation and restoration. (See figure 5.) This approach weaves together the diverse and substantial capabilities, authorities, relationships, and resources of the partner network to amplify its collective impact.

As the partnership has evolved, the suite of key strategies deployed in SCI's holistic approach has broadened and now includes the following:

- **Conservation Science and Planning** involves geospatial analysis, mapping, and field research related to land cover, land use, wildlife activity, transportation structures and networks, and other factors that either promote and enable habitat connectivity or create barriers that render animal movement more difficult. The work also involves gathering data on actual wildlife movement and using all relevant scientific tools and products to help determine where to prioritize conservation action. Organizations engaged in this strategy tend to be federal or provincial/state science agencies, international and national NGOs with a science focus, and academic institutions and researchers.
- **Land Protection (Securement), Stewardship, and Restoration** involves buying or receiving donated land in fee, securing conservation easements (a.k.a. restrictions or servitudes), and stewarding and restoring conserved and unconserved land. Partners for this strategy tend to be governmental land-holding agencies (federal/provincial/state), private land trusts, other conservation NGOs, municipalities, community groups, and private landowners.



Figure 5. The SCI partnership deploys an integrated, multipronged approach to preserve and restore connectivity so wildlife and people can thrive.

- **Land Use Planning** involves national, provincial/state, regional, and municipal policies, incentives, regulations, and procedures for determining where development will occur, and what kinds of development are encouraged, permitted, or prohibited. Partners for this strategy tend to be provincial/state planning organizations, regional planning commissions (RPCs) or their equivalents, municipal entities, local community groups, and agency and conservation NGO technical assistance providers working at one or more scales (e.g., local, provincial/state, regional).
- **Outreach and Capacity Building** involves targeted engagement and building key stakeholders' capacity, knowledge, and ability to act, often at the local and community scale. Examples include organizing participatory educational events and community workshops, attending public hearings, and providing examples of zoning bylaws to protect and restore wildlife habitat. This strategy is closely related to land use planning, and the partners similarly tend to be provincial/state planning organizations, regional planning commissions or their equivalents, municipal entities, agency and conservation NGO technical assistance providers, and local community groups.
- **Road Barrier Mitigation** involves assessing, designing, and constructing roads, bridges, culverts, and other transportation infrastructure to foster safe movement and passage of terrestrial and aquatic wildlife species and to minimize impacts on connectivity more generally. Partners for this strategy include federal/provincial/state transportation and natural resource agencies; conservation NGOs; and private sector entities such as transportation engineering firms.<sup>5</sup>

<sup>5</sup> The siting, design, construction, and maintenance of energy generation and transmission infrastructure such as solar and wind power installations, powerlines, and pipelines also can significantly affect ecological connectivity and movement of various species, but the SCI partnership has not engaged substantially in this realm thus far.



A key strategy in SCI's multipronged approach is to engage and empower local citizens to integrate ecological connectivity into their community's goals and actions. Source: Housatonic Valley Association.

- **Policy Development** involves identifying and addressing public policy needs and opportunities at various governmental levels (federal, provincial/state, regional, municipal) to support connectivity conservation and restoration across the region. Examples include incorporating habitat connectivity criteria and objectives into natural resource and transportation agency plans and policies, fostering interagency coordination, and supporting the development and implementation of policies that advance science, planning, and projects related to connectivity. Partners include local, state, provincial, regional, and federal natural resource and transportation agencies, as well as conservation NGOs.

Integrating the strategies above is crucial to successfully conserving and restoring connectivity. These strategies are not sufficient on their own—intentional, ongoing coordination between the actors applying them is vital. For example, wildlife road crossings and other road barrier mitigation will ultimately be ineffective without adjacent habitat protection and compatible land management to maintain a permeable landscape on either side of the road, informed by conservation science and planning.

Coordination at multiple scales is also pivotal to SCI's approach and success. The partnership has a full-time regional coordinator, an 8–10-member executive committee, and a broader steering committee with representatives of diverse partners to set the initiative's overarching direction and help advance shared priorities cohesively at the regional scale. Provincial/state "chapters" exist in several jurisdictions, and additional coordination occurs at other scales within SCI's scientifically identified priority linkage areas (see figure 6) and other important focal areas.

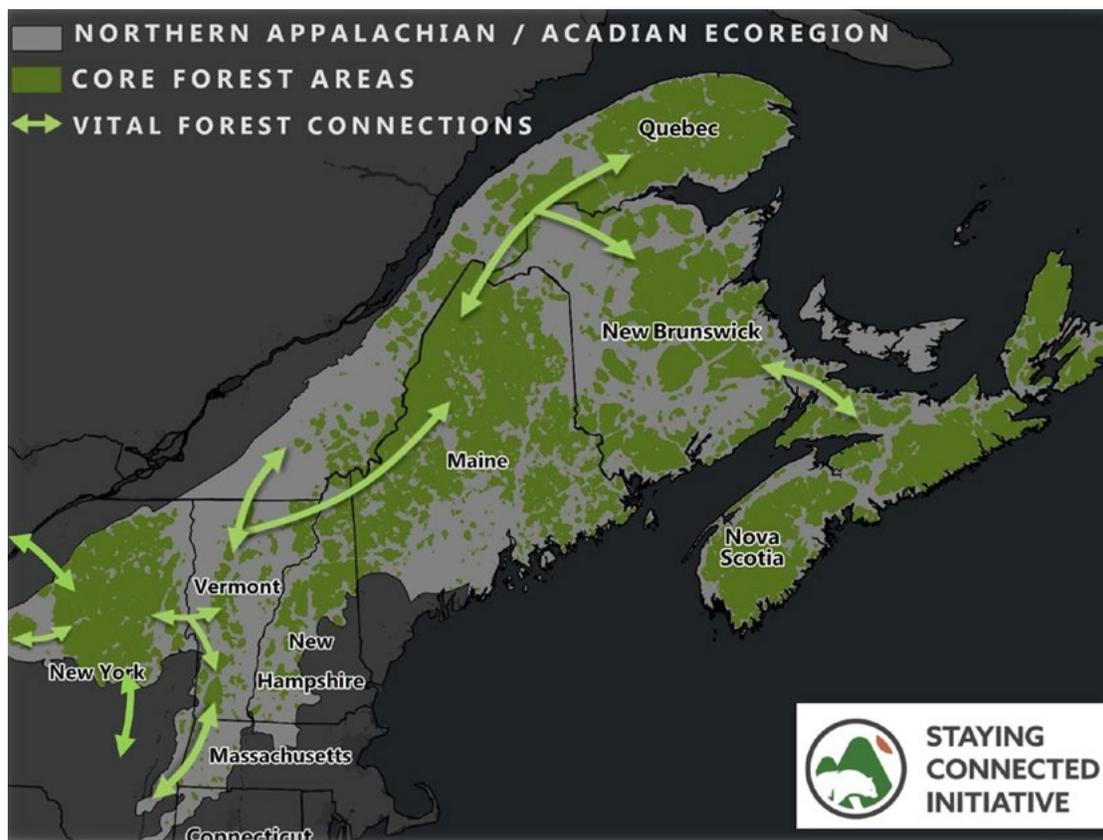


Figure 6. SCI's current suite of priority regional linkages are shown by the green arrows..

Connectivity work and the organizations involved differ at each scale:

- At the regional scale, connectivity work is generally high level and focused on partnership-building, sharing best practices, fostering collaboration, and advancing policy. Conservation science and planning at this scale tends to be more broadly visionary and less specific locally, and the organizations involved are primarily national/international NGOs, federal agencies, and other governmental entities with interests in this sphere.
- At the provincial and state scale, connectivity conservation is achieved through a combination of science, policy, and on-the-ground implementation. The partners tend to be provincial, state, and federal government agencies along with provincial/state, national, and some local NGOs. Conservation science and planning at this scale tends to be more detailed and place-specific.
- At the finer scale of key linkages and other focal areas, individual organizations and collaboratives (such as linkage partnerships and Regional Conservation Partnerships) achieve connectivity results primarily through local outreach and implementation of on-the-ground projects.
- Partners involved are typically NGOs with a local presence, community organizations, and governmental agencies supporting these efforts. Conservation science is often inferred from coarser provincial or state-scaled mapping, or available only for certain areas.

Effective coordination is essential at each of these scales to weave together relevant partners, help identify the appropriate scale of science, and connect the work with complementary efforts at other scales and locations. Relying only on coordination at the regional and large-landscape scale is not sufficient. Connectivity work is ultimately done on the ground in specific places through particular projects. Without local coordination and informed implementation, the work to conserve ecological connectivity is more conceptual and has substantially less tangible impact. Conversely, local coordination and implementation alone is insufficient; without larger-scale enabling conditions (e.g., science, policy, planning, and funding), it lacks a landscape vision and the capacity to act strategically in a broader context.

It is important to note that TNC has continued to provide important leadership and support for SCI, building on the central role it played as project manager and lead administrative and fiscal agent during the initial phase under the Competitive State Wildlife Grant. SCI's regional coordinator over most of the past 10 years has been a TNC employee whose work is dedicated to the partnership. TNC also has provided the lion's share of funding to support this critical position over that time.

## RESULTS TO DATE

Since its founding in 2009, the Staying Connected Initiative partnership has grown substantially and now includes more than 80 officially recognized partners collaborating at multiple scales to advance regional connectivity through SCI's signature multipronged, multiscaled integrated approach. These include US and Canadian governmental agencies at multiple levels (federal, provincial, state, regional, and municipal), conservation NGOs of various sizes and types, academic institutions, and community organizations (see figure 7). In addition, dozens of other groups of different sorts and thousands of individuals have been engaged in the partnership's local work through citizen science, outreach, and events.

To date, SCI partnership efforts have resulted in and facilitated the following outcomes across the Northern Appalachian–Acadian ecoregion in the United States and Canada:

- Permanent protection of over one million acres (404,685 hectares) of important private lands for connectivity;
- Hundreds of road barriers assessed and mitigated;
- Scores of municipalities and regional commissions engaged in integrating connectivity into land use plans and policies;
- Thousands of individual landowners and community members engaged through local outreach, participatory science, and events;
- Significant policy advancements, including the adoption of three resolutions on connectivity by the New England Governors and Eastern Canadian Premiers (see page 17).



Figure 7. The Staying Connected Initiative unites a diverse network of partners in Canada and the United States to secure an ecologically connected transboundary landscape in northeastern North America/Turtle Island. This vision cannot be achieved by any one entity on its own; it can only be reached through well-coordinated collective action. Source: Staying Connected Initiative.

During the initial Competitive State Wildlife Grant period, from 2009 to 2013 alone, the partnership achieved the following results in the US portion of the ecoregion:

**1. Conservation science:**

- GIS modeling and conservation planning completed for seven SCI linkage areas to focus connectivity conservation action, including a unified spatial dataset encompassing SCI priority areas for conservation across those linkages.

**2. Land protection:**

- SCI partner land trust outreach and technical assistance to landowners and public conservation agencies to advance land protection projects on priority private parcels for connectivity in the SCI linkage areas.
- 79 permanent land protection projects involving fee and easement acquisitions on more than 288,000 acres (about 116,549 hectares) of private land that contribute to connectivity and other conservation goals in the linkage areas. This included 5,473 acres (2,215 hectares) in New York, 18,722 acres (7,577 hectares) in Vermont, 9,815 acres (3,972 hectares) in New Hampshire, and 254,339 acres (102,927 hectares) in Maine.



An important part of the SCI partnership's work involves assessing whether transportation infrastructure such as culverts and bridges enable or impede the safe movement of aquatic and terrestrial species under roadways, and pursuing improvements where needed. Source: Adirondack to Algonquin Collaborative.

### **3. Technical assistance for local land use planning:**

- Targeted community outreach and assistance on connectivity and local land use planning in at least 41 communities within SCI linkages.
- Technical assistance on connectivity and municipal planning for six of the 11 regional planning commissions in Vermont and one regional commission in New York, which together provide technical assistance to 88 municipalities within SCI linkage areas.

### **4. Road barrier mitigation:**

- Identified priority road segments for connectivity in all linkage areas.
- Conducted wildlife tracking along key road stretches in most of the linkages.
- Shared technical assistance and data on priority road segments with state transportation agencies.
- Developed a Transportation and Habitat Connectivity Guidance Document to inform road corridor planning, project design, and operational practices.
- Developed road ecology training for transportation department engineers titled "Highways and Habitats," piloted in Vermont.

Canadian partners have also made tremendous strides over SCI's lifespan to advance connectivity conservation and restoration in their portion of the Northern Appalachian–Acadian ecoregion. These accomplishments are woven into the cumulative results of the SCI partnership summarized earlier in this section.



Massachusetts Governor Maura Healey and Newfoundland and Labrador Premier Andrew Furey sign Resolution 45-2 on behalf of the New England Governors and Eastern Canadian Premiers at the 45th NEG-ECP Conference in Boston, MA, on September 10, 2024. Source: John Austin, Vermont Fish and Wildlife Department.

### **Action on Connectivity by the New England Governors and Eastern Canadian Premiers (NEG-ECP)**

In the policy realm, among other achievements, the SCI partnership has played an important role in securing three landmark resolutions to sustain and enhance ecological connectivity by the NEG-ECP. The first, Resolution 40-3, *Resolution on Ecological Connectivity, Adaptation to Climate Change, and Biodiversity Conservation*, was adopted in 2016. It highlighted the regionwide importance of connectivity and, among many provisions, directed state and provincial agencies to “work across landscapes and borders to advance efforts to restore and maintain ecological connectivity” and to “elevate ecological connectivity, conservation, and restoration in their activities....”

Resolution 40-3 also directed the NEG-ECP Committee on the Environment to establish a working group from provincial and state agencies to coordinate efforts and report back on progress. The resulting Ecological Connectivity Working Group (ECWG) met and worked through early 2020 and developed an unreleased final draft report summarizing its efforts. Unfortunately, the COVID-19 pandemic interrupted the group’s progress and no further work was completed.

Nonetheless, since 2016 Resolution 40-3 has served as an invaluable policy statement by the region’s highest-ranking elected officials that emphasizes the importance of ecological connectivity and the jurisdictions’ commitment to work individually and collectively to maintain and enhance it.

The resolution has fostered dialogue and collaboration among the provinces and states, has been an important leverage point for connectivity work by others, and is seen as a model for other regions in North America and beyond.

More recently, in September 2024, the New England Governors and Eastern Canadian Premiers adopted Resolution 45-2, *Resolution Concerning Ecological Connectivity, Climate Adaptation, and Food Security*. This resolution reaffirmed the support of the leaders in office at the time for Resolution 40-3, adopted by their predecessors eight years earlier. It “direct(s) the (NEG-ECP) Committee on Environment to reconvene to evaluate progress made since effectuation of Resolution 40-3 ... and consider and further any additional steps needed to advance this collective work.” And in November 2025, the Governors and Premiers adopted Resolution 46-3, *Resolution Concerning Ecological Connectivity and Food Security*. This latest statement acknowledges efforts to implement Resolution 45-2 and directs the development of a prioritized list of actions and recommendations to advance long-term regional collaboration on connectivity conservation ahead of the NEG-ECP’s next annual conference in 2026.

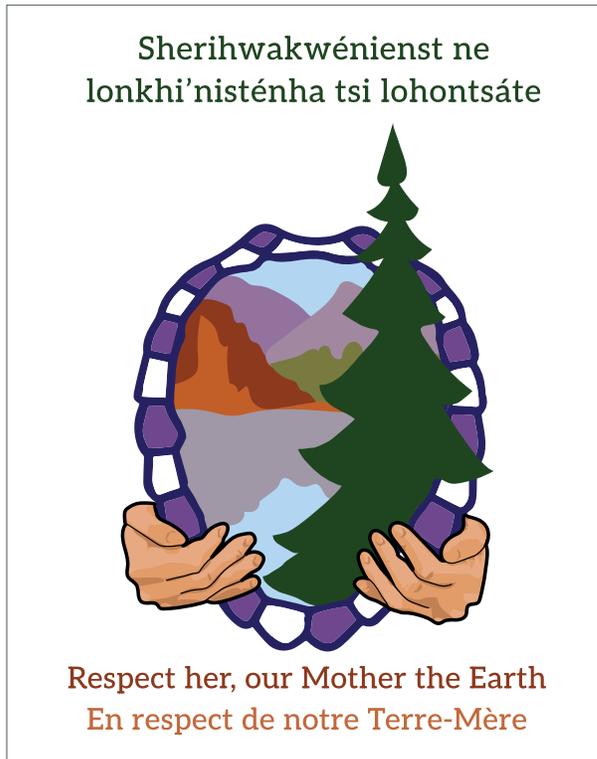
These resolutions are a significant and timely recommitment by the region’s top provincial and state leaders to work together across borders to sustain and enhance ecological connectivity for the many benefits that connected landscapes provide. They dovetail well with other important developments in connectivity conservation and restoration across the region, and provide a critical platform for further collaboration among the region’s state and provincial governments, and with Indigenous and nongovernmental partners.

It is important to note that the NEG-ECP connectivity resolutions encompass and apply to all five of the eastern Canadian provinces and all six New England states. That is a broader geography than the Northern Appalachian–Acadian ecoregion, which has been the focus of the Staying Connected Initiative since its founding in 2009.

### **First-Ever Northeastern North America/Turtle Island Landscape Connectivity Summit**

With respect to building the network of people and organizations engaged in collaborative connectivity work across the region, the SCI partnership took a major step forward in June 2024 by convening the Northeastern North America/Turtle Island Landscape Connectivity Summit in Montreal/Tiohtià:ke, Quebec, Canada.

This first-ever gathering brought together a diverse mix of participants from across borders, cultures, and sectors to build relationships and chart a path toward an ecologically and culturally connected landscape for all inhabitants of this globally significant region. Over 170 conservation leaders, practitioners, researchers, funders, and others from Canada, the United States, and Indigenous Nations both within and far beyond Northeastern North America/Turtle Island participated.



The turtle shell form represents Turtle Island, with the outside scutes in the original wampum shell colors, purple and white. Wampum was the basis of all agreements and treaties between the Haudenosaunee and European and North American governments. The pine is the tree of peace, found on the Mohawk logo; the hands symbolize that the future is in our hands.

Design created for the Northeastern North America/Turtle Island Landscape Connectivity Summit in Tiothià:ke/Montreal by artist Jasmin Gunn.

The summit focused on achieving the following outcomes:

- Expanded relationships and durable mechanisms for well-coordinated, collaborative, and inclusive landscape connectivity conservation at multiple scales;
- Enhanced awareness of the region's significance and connectivity challenges, opportunities, and strategies;
- Promising approaches for advancing connectivity conservation and restoration;
- Momentum toward solutions and biodiversity conservation goals like the 30x30 target; and
- Reinforced support for the principles of the New England Governors and Eastern Canadian Premiers' (NEG-ECP) Resolution 40-3 on ecological connectivity, adaptation to climate change, and biodiversity conservation, adopted in 2016.

Elevating and integrating Indigenous perspectives, knowledge, and approaches was a prominent goal and theme throughout the summit, with strong Indigenous attendance and powerful speakers and performances over the course of the gathering. In addition, a local Kanien'kehá:ka (Mohawk) Nation artist was commissioned to create a unique design for the summit. Her design and description became the visual symbol and touchstone for the gathering.



The 2024 Northeastern North America/Turtle Island Landscape Connectivity Summit brought together 175 conservation leaders and practitioners from the region and beyond to build relationships and develop a shared vision for action. Source: Audrey Huffman.

The summit was a resounding success, with great energy, strong connections, important learning and outcomes, and keen interest in convening another similar gathering. It provided a springboard that contributed to the New England Governors and Eastern Canadian Premiers' adoption of Resolution 45-2 only three months later, and has significantly increased momentum and created new openings for advancing connectivity conservation and restoration in a range of ways.

### **Distilling Key Actions from the 2024 Connectivity Summit**

Building on the success and momentum of the Connectivity Summit, the lead organizing partners published a guide for leaders and practitioners to advance connectivity conservation and restoration across the region. Released in spring 2025, "Pathways to an Ecologically Well-Connected Transborder Landscape" distills key learnings and actions across the full range of SCI strategies and others that surfaced during the summit. The guide is intended to help inform the provinces and states as they implement NEG-ECP Resolutions 40-3 and 45-2, as well as the work of many other collaborative efforts and individual organizations in the coming years.

## **ANALYSIS AND EVALUATION**

The Staying Connected Initiative offers a compelling and inspiring vision, a durable partnership, and a successful model of collaborative connectivity conservation across borders, sectors, and scales.

SCI's holistic, integrated, partnership-based approach to connectivity conservation has proven that it can powerfully rally diverse interests around a common mission and achieve impactful connectivity

results both on the ground and in the policy realm. Recent successes—such as the first-ever regionwide Connectivity Summit, the renewed commitment to connectivity as a regional priority by the New England Governors and Eastern Canadian Premiers, and growing engagement with the Northeast Association of Fish and Wildlife Agencies—provide a strong platform and momentum for significant further progress in the next few years.

There is now a need for SCI to further develop and evolve to sustain partner outreach, engagement, and coordination at the pace and scale required to plan for, support, and implement effective connectivity conservation and restoration activities across the Northern Appalachian–Acadian ecoregion and surrounding area.

The SCI partnership has been in existence for 16 years, with significant success in conserving and restoring connectivity. Yet even as important work has progressed and tangible results have grown, the partnership’s operational capacity is unevenly spread across the region. The degree of partner coordination, resources, and capacity for connectivity work remains variable and limited in large swaths of SCI’s vast transboundary geography. Key needs include increasing capacity and participation among Canadian partners, bolstering coordination capacity at the regional scale and in several key linkages and jurisdictions, and securing additional capacity for internal and external communications to help foster cohesiveness and more effectively share the connectivity and SCI stories.

In addition, the SCI partnership has considerable work to do to further build relationships with the Indigenous peoples of the northeastern region of North America/Turtle Island and to explore potential opportunities for collaboration. Many individual SCI partners have been working closely with Indigenous colleagues for years, and the partnership took a significant step forward with the substantial and powerful Indigenous involvement in the 2024 Connectivity Summit in Montreal/Tiohtià:ke. But there is much more to be done to elevate Indigenous voices and perspectives in the partnership overall, to integrate traditional knowledge and to foster Indigenous-led efforts in order to more holistically, equitably, and effectively sustain a well-connected landscape for all living beings in this globally significant region.

Other important stakeholders and institutions whose decisions and actions have a bearing on ecological connectivity are insufficiently engaged as well. Examples include the corporate and private forestry sector, local planning boards and commissions in many jurisdictions, outdoor recreation interests, public development authorities, and the housing development and energy sectors. Many of these may lack awareness of the importance of connectivity and of their ability, and in some cases, mandate, to account for connectivity in their decisions and actions. There is a pressing need for these interests to be more aware of and involved in connectivity conservation and restoration efforts, but conservation partners and SCI leadership have limited capacity to engage them effectively.

The Staying Connected Initiative is at a critical point in its development. The partnership is poised to continue its strong forward momentum, but needs to ensure it has sufficient, sustained capacity to provide effective coordination at multiple scales to optimize collective conservation impact. This hinges in part on further cultivating a broadly representative core group of strongly invested partners who help deliver funding and take on leadership directly to maintain and add capacity for core coordination functions. Those include internal and external communications, strategic convenings, fundraising, and engagement with existing and new partners, all of which have been key to SCI's success to date.

## LESSONS LEARNED

Key lessons from the Staying Connected Initiative's first 16 years include the following:

- Working at the landscape scale and in a transborder setting is compelling, energizing, and an essential complement to conservation work at smaller scales. Having a big vision and unifying theme such as SCI's focus on an ecologically well-connected transboundary landscape at the vast scale of the Northern Appalachian–Acadian region can galvanize a wide range of entities and individuals. Being part of a large-scale initiative can foster a sense of pride and inspiration among people and groups whose primary focus is at smaller, more local scales.
- At the same time, landscape-scale transboundary conservation work is significantly more complex and challenging than smaller-scale efforts. Pursuing collaborative, multistrategy conservation and restoration work effectively across a large, diverse geography like SCI's requires, among other important elements, the active and ongoing engagement of a broad mix of partners at several nested scales; partners' willingness to think and work across sectors, institutions, and cultures; capable, sustained coordination at multiple scales; and substantial funding from many sources to fuel it all both in the short and long term.
- Effective, sustained coordination is an essential special sauce for optimizing the collective impact of the partner network. Without effective coordination, organizations may miss opportunities for collaboration and synergy. Yet, funding for coordination capacity is notoriously harder to obtain from traditional sources like foundations and government grants than funding for on-the-ground implementation projects. To help address this pressing need, partner organizations may have to contribute funding within their respective means to support coordination and/or provide in-kind staff assistance for aspects of coordination that fit within their scope, skills, and capacity. Securing and sustaining this support from partners is challenging but vital for long-term success.
- Resource scarcity can lead to competition among conservation partners that should be collaborating, such as NGOs that rely on a relatively limited number of donors, foundations, and government grants.
- Conversely, a substantial pool of funding shared among partners is a powerful force for bringing groups together, fostering a shared sense of purpose, sparking collaboration, leveraging additional resources, overcoming competitiveness, and enabling significant results. The US\$1 million Competitive State Wildlife Grant and matching grants that launched the SCI partnership



As part of the Staying Connected Initiative's grounding in conservation science, partners use automated cameras to gather images and data on the presence of various wildlife species in key habitat linkages. This information is used to help inform where to focus conservation efforts like land protection and stewardship, and to tell the story of the work and why it matters. Source: Lauren Owens Lambert.

had exactly those effects and laid the foundation upon which SCI's longer-term viability and success have been built. It is debatable whether the SCI partnership would have ever come together without that infusion of sizable initial funding to support the connectivity work of many different entities in the early years.

- At the same time, having a substantial pool of funding to support the work of many diverse partners on a multiyear basis can be extremely complicated and requires significant time, capacity, expertise, patience, and internal systems to manage effectively. Having a capable and willing entity to provide fiscal, administrative, and overall project management is essential for success in these situations, as demonstrated by The Nature Conservancy's lead role during SCI's initial phase with the CSWG and matching funding. A well-positioned lead entity also can bring important social capital, relationships, credibility, and other intangible factors to a partnership.
- Making meaningful, durable headway on land use planning and stewardship of unconserved private land that supports connectivity is essential in the very large, predominantly privately owned landscape of the Northern Appalachian–Acadian ecoregion. Achieving that headway over time requires sustained on-the-ground capacity, expertise, people skills, and presence to build relationships and trust with key local players and private landowners. Ongoing technical assistance and decision support that demonstrates best practices and examples of success for municipal boards and commissions are critical for action; simply providing information is insufficient.
- Measuring, compiling, and distilling results in the short term and over time is critical for all conservation work. But doing this effectively on a sustained basis is especially challenging for a partnership like the Staying Connected Initiative, which is focused on a vast landscape, involves

many dozens of partners, and employs multiple strategies across several scales. It is essential to collaboratively develop a carefully thoughtout, robust but targeted framework early on that is feasible and efficient for partners to feed information into, and then build a pattern of reporting actions and impacts on a recurring timeframe (e.g., annually) that becomes an established expectation among participating organizations.

## RECOMMENDATIONS FOR PRACTITIONERS

Practitioners involved in or considering undertaking a similar complex partnership/network-based, landscape-scale conservation initiative are encouraged to consider these key points:

- Invest time, energy, and resources in building relationships and trust at a variety of levels, from local communities to federal entities. This is essential for advancing impactful collaborative work.
- Employ a multipronged approach involving an integrated mix of strategies that draws on the capabilities of diverse partners. At the landscape scale, no single conservation strategy, tool, or partner will be sufficient to move the needle far enough, fast enough. Significant change will only happen through the collective impact of a well-coordinated partner network engaged on a range of fronts simultaneously.
- Be clear-eyed from the outset about the need for, and cost of, adequate and sustained capacity for coordination at multiple scales. Think creatively about ways to activate the partnership to help support this capacity over time.
- Bring partners together early to develop and foster collective ownership of a clear, compelling shared vision. This will be critical in providing a common narrative and rallying cry; it also helps everyone see how they fit in and provides a touchstone to keep them rowing in the same direction.
- Use compelling stories and visuals to engage diverse audiences and inspire them to act. Secure support from skilled communications staff within the partnership to help optimize these efforts.
- Don't be daunted about engaging in landscape-scale, partnership-based conservation work. Although it can be challenging, it also can be fun and energizing to connect with people across sociopolitical, institutional, sectoral, and cultural borders and perspectives. The work is also essential to help sustain biodiversity and robust human communities confronted by fragmentation from development, climate change, and other threats.

## APPENDIX: TEACHING PLAN AND STUDY GROUP QUESTIONS

The case study should be discussed in order, with the addition of the following section-specific questions, which can be used with students to foster deeper reflection and analysis:

- **Introduction and Context**
  - *Before the Subsection “Benefits for People”:* What might be the benefits of well-connected landscapes for human communities? [Fact]
  - *After the Subsection “Benefits for People”:* How can these cobenefits be leveraged to promote conservation and sustainable development in the region? [Analysis]
  - *After the Section:* How might the principles of ecological connectivity inform broader regional planning and development initiatives beyond conservation, such as tourism or local infrastructure projects (e.g., roads)? [Analysis]
  - *After the Section:* The text mentions the identification of “landscape linkages.” How can traditional ecological knowledge from Indigenous communities be integrated with scientific data to identify and prioritize these key areas for conservation? [Judgment]
- **Problem Statement**
  - *Before the Section:* The Staying Connected Initiative works across national and state/provincial borders. What unique challenges might arise when trying to conserve nature in an area governed by so many different sets of rules and priorities? [Analysis]
  - *After the Section:* Most of the land in the SCI region is privately owned. What are some ways to work with private landowners to achieve conservation goals? What policy innovations could be implemented to incentivize private landowners to participate in connectivity conservation while respecting their property rights? [Judgment]
- **Strategy and Implementation**
  - *After the Section:* How can new technologies be leveraged to enhance the effectiveness of connectivity conservation efforts (e.g., remote sensing, data analytics, citizen science platforms)? [Judgment]
  - *After the Section:* Considering the different scales of connectivity work, how can communication and knowledge sharing be improved among regional, state/provincial, and local actors to ensure a cohesive and coordinated approach to conservation? [Judgment]
- **Results to Date**
  - *Before the Section:* What specific metrics or indicators could be used to evaluate the success of the Staying Connected Initiative in achieving its goals related to ecological connectivity conservation and restoration? [Fact]
  - *After the Section:* Based on the results presented, how effective has the Staying Connected Initiative been in achieving its goals? What areas show the most progress and where is there room for improvement? [Analysis]

- **Analysis and Evaluation**
  - *After the Section:* The Staying Connected Initiative aims to improve ecological connectivity across a large region with many different actors involved. What are some of the biggest challenges SCI faces in getting everyone to work together effectively, and how could they overcome these challenges to better achieve their goals? [Judgment]
  - *After the Section:* How can the Staying Connected Initiative enhance its efforts to ensure meaningful inclusion, equitable benefits, and respectful engagement with all communities in the region, particularly Indigenous peoples? [Judgment]
  - *After the Section:* SCI's recent successes with the 2024 Connectivity Summit, the new NEG-ECP Connectivity Resolution, and growing engagement with the Northeast Association of Fish and Wildlife Agencies have created a pivot point and dynamic tension for SCI related to its geographic scope. Should the partnership recenter on its historical focus on the Northern Appalachian–Acadian ecoregion? Or should it fully embrace working across the even larger geography of the full northeastern region of North America/Turtle Island (and potentially neighboring areas beyond to the northwest and south)? Or is there a viable way to do both? [Judgment]
  - *After the Section:* What are the best metrics and data collection methods to measure impact of SCI across the region? [Judgement]
- **Lessons Learned**
  - *After the Section:* Based on the experiences of the Staying Connected Initiative, if one were to establish a comparable connectivity initiative in a different geographical region, what should be the first priority and what specific course of action should be avoided? [Judgment]
  - *After the Section:* How can landscape-scale connectivity conservation and restoration efforts be integrated with other societal priorities to create cobenefits (e.g., housing, clean air and water, recreation access)? [Analysis]

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## ABOUT THE AUTHORS

**Phil Huffman** (lead author) is senior vice president, Regional and Global Programs, for the Quebec-Labrador Foundation (QLF). In this role, he leads QLF's work on transborder ecological connectivity conservation and restoration in the northeastern United States and eastern Canada; he also provides guidance and partnership development for other QLF conservation programs in the region and develops new initiatives elsewhere in the world. He has played a variety of leadership roles in the Staying Connected Initiative since its founding in 2009, most recently spearheading the first-ever Northeastern North America/Turtle Island Landscape Connectivity Summit in 2024 and follow-on efforts including the preparation of "Pathways to an Ecologically Connected Transborder Landscape." Phil has been a conservation leader in the region for more than three decades, with extended stints with The Nature Conservancy in Vermont and the US National Park Service, and as an independent consultant. His work has encompassed innovative, effective approaches to landscape-scale and connectivity conservation; cross-border collaboration and partnerships; community-based river conservation; public and private land stewardship; and policy and advocacy.

**Mikael Cejtin** serves as the Staying Connected Initiative coordinator on behalf of The Nature Conservancy. As SCI coordinator, Mikael serves as the partnership's primary convener and spokesperson. In this role he promotes and facilitates cross-boundary collaboration to conserve and restore ecological connectivity at multiple scales, including through planning, policy, barrier mitigation, and land protection. Prior to his position with SCI and The Nature Conservancy, Mikael managed a portfolio of climate adaptation projects for the New York State Department of State and taught environmental courses at Paul Smith's College. As a wildlife biologist, Mikael tracked and studied bobcats, wolves, and mountain lions. Mikael lives with his wife and daughter in an old farmhouse in southern New Hampshire and sits on his local conservation commission.

**Deb Kmon Davidson** leads the Center for Large Landscape Conservation's efforts to advance ecological connectivity conservation across the globe. As chief strategy officer, Deb directs the center's fundraising, communications, and conservation programs. Deb also codirects the Network for Landscape Conservation's Catalyst Fund. Deb has worked in conservation philanthropy and wildlife conservation for over 25 years. Her work has largely focused on the protection of wildlife corridors and large landscape conservation, specifically on network development, connectivity policy, and science in North America. Before joining the center in 2015, Deb worked for the Wilburforce Foundation, American Wildlands, the Ecology Center, and Montana Outdoor Science School. She has served on numerous boards, including as the president of the Bozeman Community Food Co-op, and as an advisor to the Gallatin Valley Land Trust. Deb has an MS in environmental studies from the University of Montana and a BS in biology and African studies from St. Lawrence University.

**Jens Hawkins-Hilke** is a conservation planning biologist with the Vermont Fish and Wildlife Department. He leads the Community Wildlife Program, which provides technical assistance to Vermont municipalities on land use planning. In this role he helps towns, regional planning commissions, and nongovernmental organizations interpret ecological data and apply it to land use. A central participant in the Staying Connected Initiative since its inception in 2009, Jens helps maintain a network of habitat connectivity across the state and the broader Northern Appalachian–Acadian region, coordinating with partners in land use planning, conservation science, land protection, transportation, and outreach. He is engaged in road ecology training with the Vermont Agency of Transportation, as well as prioritizing important wildlife hot spots in its road infrastructure network through a game camera and tracking program.

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## COVER PHOTO

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## KEY ISSUES

Ecological Connectivity

Biodiversity Conservation

Transboundary Collaboration

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